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Title: *Substrates and Assays for  $\beta$ -Secretase Activity*

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Sheet 1 of 6 (Figure 1A)

**FIG. 1A**

ATGCTGCTGCTGCTGGCTTGAGGCTACAGCTCCCTGGCATCCTCCA

M L L L L G L R L Q L S L G I I P

GTTGAGGGAGAACCCGGACTTCTGAAACCGCCGGAGGCAGGCCCTGGGTGCC

V E E N P D F W N R E A A E A L G A A

AAGAAGCTGCAGCAGCACAGACAGGCCAACCTCATCATCTTCTGGCGATGGG

K K L Q P A Q T A A K N L I I F L G D G

ATGGGGGTGTCTACGGTGAACAGCTGCCAGGATCCTAAAGGGCAGAACAGAACAAACTG

M G V S T V T A A R I L K G Q K D K L

GGGCCTGAGATAACCCCTGGCCATGGACCGCTTCCATATGTGGCTCTGTCCAAGACATAC

G P E I P L A M D R F P Y V A L S K T Y

AATGTAGACAAACATGTGCCAGACAGTGGAGGCCACAGCCACGGCTACCTGTGGGGTC

N V D K H V P D S G A T A T A Y L C G V

AAGGGCAACTCCAGACCATTGGCTTGAGTGCAGCCGGCTTAACCAAGTGCAACACG

K G N F Q T I G L S A A R F N Q C N T

ACACGGGCCAACGAGGTCACTCCCGTTGAATGGGCCAAGAACGGGAAGTCAGTG

T R G N E V I S V M N R A K K A G K S V

**FIG. 1B**

GGAGTGGTAACCAACCACAGGAGTCGCACGCCCTCGCCAGCCCCCACCTACGCCACACG  
G V T T R V Q H A S P A G T Y A H T

GTGAACCGCAACTGGTACTCGGACGCCGACGTGCCCTGCCTCGCCCCGCCAGGAGGGGTGC  
V N R N W Y S D A D V P A S A R Q E G C

CAGGACATCGCTACCCAGCTCATCTCCAACATGGACATATTGACGGTGAATCCTAGGTGGAGGC  
Q D I A T Q L I S N M D I D V I L G G G

CGAAAGTACATGTTCCCATGGAACCCAGACCCCTGAGTACCCAGATGACTACAGCCAA  
R K Y M F P M G T P D P E Y P D D Y S Q

GGTGGACCGGCTGGACGGAAAGAATCTGGTGCAGGAATGGCTGGCGAAGGCCAGGGT  
G G T R L D G K N L V Q E W L A K R Q G

GCCCGGTATGTTGGAACCCGCACTGAGCTCATGCAGGCTTCCCTGGACCCGTCTGTGACC  
A R Y V W N R T E L M Q A S L D P S V T

CATCTCATGGGTCTCTGGAGACATGAATAACGGAGATCCACCGAGACTCCACA  
H L M G L F E P G D M K Y E I H R D S T

**FIG. 1C**

CTGGACCCCTCCCTGATGGAGATGAGACAGGGCTGCCCTGGCTGACGGAAACCCC  
L D P S L M E M T E A A L R L L S R N P

CGCGGCTTCTTCCTCGTGGAGGGTGGCATCGACCATGGTCATGAAAGCAGG  
R G F F L F V E G G R I D H G H E S R

GCTTACCGGGCACTGACTGAGACGATCATGGTCCGACGAGGGGGCCAG  
A Y R A L T E T I M F D D A I E R A G Q

CTCACCGGGAGGACACGGCTGAGGCCTCGTCACTGCCGACCACTCCACGTCTTCTCC  
L T S E D T L S L V T A D H S H V F S

TTCGGAGGCTACCCCTGGGAGGGCTCCATCTGGCTGGCCCTGGCAAAGGCCGG  
F G Y P L R G S S I F G L A P G K A R

GACAGGAAGGCCCTACACGGCTCCTATAACGGAAACGGTCCAGGCTATGTGCTCAAGGAC  
D R K A Y T V L L Y G N G P G Y V L K D

GGCGCCGGCCGGATGTTACCGAGGAGGGAGCCCCGAGTATCGGCAGCAGTCA  
G A R P D V T E S E S G S P E Y R Q Q S

**FIG. 1D**

GCAGTGCCTGGACGAAGAACCCACGCCAGGGACGGTGGCGGGTTCGGCGGGC  
 A V P L D E E T H A G E D V A V F A R G  
  
 CCGCAGGGCACCTGGTTCACGGCGTGCAGGAGCCTCATAGGCCACGTCAATGCC  
 P Q A H L V H G V Q E Q T F I A H V M A  
  
 TTCGGCCGGCCTGGAGCCCTACACCCGGCCTGGCACCTGGCCGGGCCACC  
 F A A C L E P Y T A C D L A P P A G T T  
  
 GACGCCGGCACCCAGGTAACTATGAAAGTTCCGAAGAGCACTCTACGTAGAGGGT  
 D A A H P G N Y E V E P R R A I Y V E G  
  
 GAAAGAGGATCTTCTACACTCCAAGGCACTTACCTCGTAGAGGGTGAAAGAGGATT  
 E R G F F Y T P K A L Y L V E G E R G F  
  
 TTCTACACTAGTCTCATGACCATAGCCTATGTCATGGCTGCCATCTGGCCCTCTTCATG  
 F Y T S L M T I A Y V M A A I C A L F M  
  
CTGCCACTCTGGCTCATGGTGGACTACAAGGATGATGACAAGTAG  
L P L C L M V D Y K D D K \*

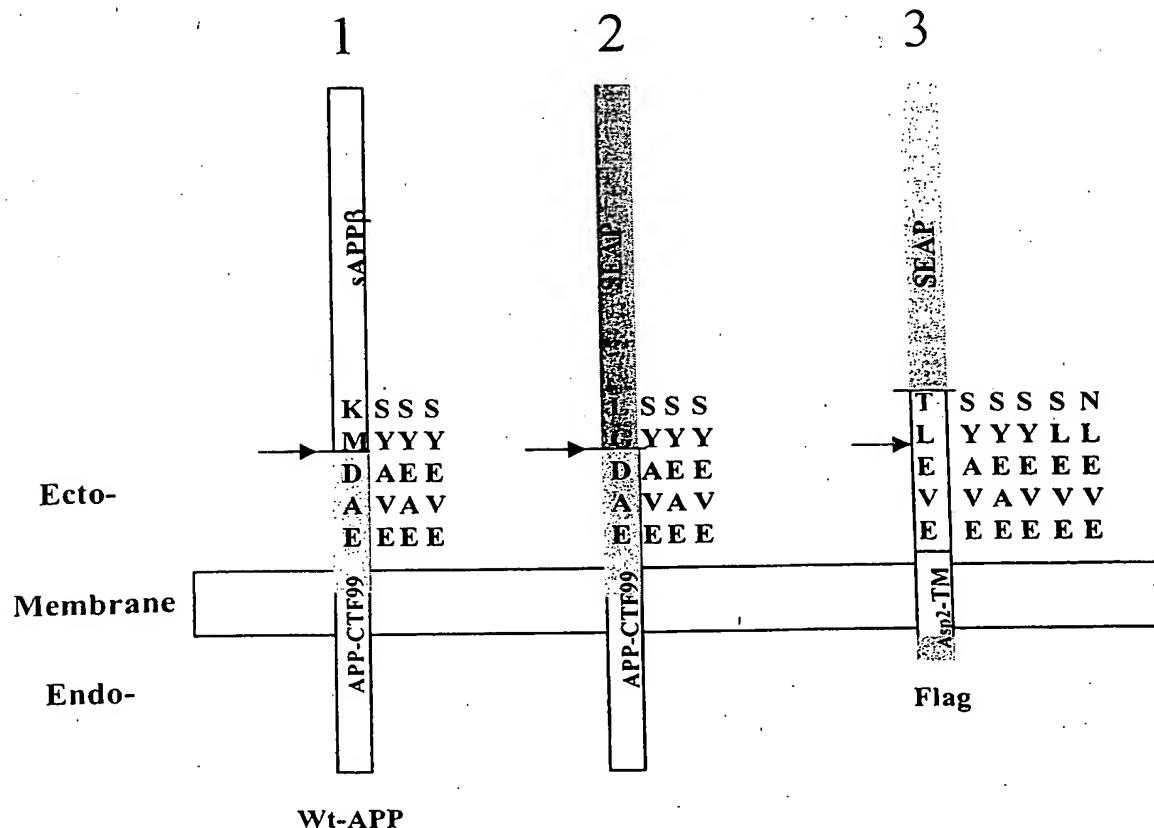
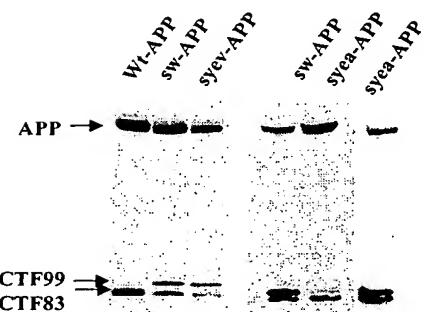


FIG. 2



**FIG. 3**